the comparative efficacy and safety across SGLT2is. Data gaps were completed with information derived from published sources, including previous cost-effectiveness analyses. The UK National Health Service (NHS) perspective was considered to estimate costs and QALYs over a patients' lifetime. **RESULTS:** There were small differences in efficacy and safety across SGLT2is, which resulted in minor QALY and cost differences across treatment combinations. On average, empagliflozin 25mg obtained incremental QALYs of 0.029 versus dapagliflozin 10mg and 0.019 versus canagliflozin 100mg, and incremental costs of £178 and £86, respectively, whereas both canagliflozin 300mg and empagliflozin 10mg were dominated by empagliflozin 25mg. This resulted in an incremental cost-effectiveness ratio (ICER) of £4,858 per QALY gained with empagliflozin 25mg vs. canagliflozin 100mg. However, the differences across treatments were not significant when 95% percentile confidence intervals were considered. These results were robust to a number of sensitivity analyses including a 10-year time horizon, BMI impact, discount rates and parameter values related to utilities, disutilities, adverse events, and discontinuation rates. **CONCLUSIONS:** Overall, differences in QALYs and costs were minor between SGLT2is used as add-on to metformin in UK T2DM patients. On average, empagliflozin 25mg was the most cost-effective strategy, with an ICER of £4,858 per QALY gained vs. canagliflozin 100mg.

PDB108

COST EFFECTIVENESS ANALYSIS OF FLASH GLUCOSE MONITORING FOR TYPE 2 DIABETES PATIENTS RECEIVING INSULIN TREATMENT IN THE UK

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OBJECTIVES: A small, minimally-invasive flash glucose monitor (FGM) has recently been developed. Arm sensors worn up to 14 days interact with a hand-held reader to convey 8 hours of continuous glucose level data. The reader stores data, communicating glucose control via trend charts. Economic evaluation of FGM vs. conventional blood glucose monitoring (BGM) has not been conducted. This analysis estimates potential cost-effectiveness of using FGM in UK insulin-treated type 2 diabetes mellitus (T2DM) patients. **METHODS:** The IMS Core Diabetes Model (CDM) was used for analyses, assuming a lifetime horizon (40 years). Patient characteristics were based on early FGM feasibility trial data. Effectiveness was measured in life years (LY) and quality-adjusted life years (QALY), with assumptions around FGM effectiveness based on expected benefits of use. These include: a) lower HbA1c by 0.35%-0.5% compared to BGM over the horizon; b) utility improvement due to fewer finger pricks of 0-0.03; c) minor hypoglycaemic event rate reduction of 0% or 50% compared to BGM due to potential improved glycaemic control. Cost data (direct costs only) were extracted from published literature and government sources, and inflated to 2013 GBP. Incremental cost-effectiveness ratios (ICERs) were estimated, and threshold analysis was performed to estimate potential total FGM sensor costs for each scenario. **RESULTS:** Based on assumptions above, the ICER for FGM vs. BGM ranges from £10,034-£29,068/QALY. With 0.5% HbA1c improvement, 0.01 utility benefit, and no difference in hypoglycaemic events, the ICER is £17,808/QALY. Assumptions around utility improvement have a larger ICER impact than HbA1c benefit or change in minor hypoglycaemic events. Threshold analysis shows that with a conventional ICER threshold (£30,000/QALY), £14,606-£27,956 can be spent on sensors over a lifetime across scenarios. **CONCLUSIONS:** Using an alternate glucose monitoring method could be cost-effective across a variety of clinical benefit and cost assumptions in T2DM (T1DM analysis forthcoming).

PDB109

COST EFFECTIVENESS EVALUATION OF CANAGLIFLOZIN IN COMBINATION WITH METFORMIN AND SULFONYLUREA IN COMPARISON TO NPH INSULIN IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS IN POLAND

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OBJECTIVES: To evaluate the cost-effectiveness of canagliflozin, an active inhibitor of sodium glucose co-transporter – 2 (SGLT2), in triple therapy of diabetes as add-on to metformin and sulfonylurea compared to NPH insulin in combination with oral antidiabetics. Canagliflozin in clinical trial results showed effective glucose reduction, along with other benefits in diabetes treatment including weight loss and SBP reduction. Cost effectiveness analyses were conducted in the Polish setting from a public perspective in accordance with guidelines of Polish HTA Agency (PolAHTA). **METHODS:** The IMS CORE Diabetes Model was used to evaluate the cost-effectiveness of canagliflozin in triple therapy versus NPH insulin using Polish-specific data, where available. Clinical data were derived from mixed treatment comparison analysis of published studies, as there is no head to head trial comparing canagliflozin with NPH insulin. Direct costs were reported in Polish zloty and an annual discount rate of 5% and 3.5% were applied on costs and effects respectively. **RESULTS:** In a triple therapy as add-on to metformin and sulfonylurea canagliflozin is a cost- effective treatment option in comparison with NPH insulin with ICERs of 4 477 z³ and 69 081 z³ for canagliflozin 100 mg and 300 mg respectively. Associated QALY gains were 0,084 and 0,106. Both results are below defined in Polish reimbursement act cost-effectiveness threshold. **CONCLUSIONS:** These results suggest that adding Canagliflozin to dual therapy versus insulin intensification in patients inadequately controlled with MET+ SU would be a more efficient use of health care resources in the Polish setting.

PDB110

COST-EFFECTIVENESS OF EMPAGLIFLOZIN (JARDIANCE®) 10 MG AND 25 MG ADMINISTERED AS AN ADD-ON TO METFORMIN AND SULFONILUREA (MET+SU) COMPARED TO OTHER SODIUM-GLUCOSE CO-TRANSPORTER 2 INHIBITORS (SGLT2IS) IN PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) IN THE UK

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OBJECTIVES: To assess the cost-effectiveness of the SGLT2is empagliflozin 10mg and 25mg compared to other SGLT2is (canagliflozin 100mg and canagliflozin 300mg) when administered as an add-on to MET+SU in patients with T2DM in the UK. **METHODS:** Long-term diabetes-related complications, QALYs, and costs were estimated for T2DM patients failing MET+SU. A micro-simulation model was developed based on the United Kingdom Prospective Diabetes Study (UKPDS68) and the Januvia Diabetes Economic (JADE) model. A network meta-analysis comparing efficacy and safety across SGLT2is was used to populate the model. Data gaps were completed with information derived from published sources, including previous cost-effectiveness models. Costs and QALYs were estimated over a patients' lifetime from the UK National Health Service perspective. **RESULTS:** Empagliflozin 10mg attained the highest QALYs (6.991, compared to 6.98 for canagliflozin 100mg, 6.978 for empagliflozin 25mg and 6.976 for canagliflozin 300mg) due to slightly better HbA1c, SBP and weight control, and a small number of non-severe hypoglycaemias, compared to higher doses. Canagliflozin 300mg was the most costly strategy (£32,087, vs. £31,217 for canagliflozin 100mg, £31,409 for empagliflozin 10mg and £31,557 for empagliflozin 25mg). Therefore, empagliflozin 10mg dominated both canagliflozin 300mg and empagliflozin 25mg, and resulted in an incremental cost-effectiveness ratio of £17,445 per QALY gained vs. canagliflozin 100mg. However, incremental QALY and cost differences were not significant based on 95% percentile confidence intervals. These results remained robust when sensitivity analyses were conducted, including utilities, adverse events, discontinuation, modelling of weight, impact of BMI, duration of effect, time horizon and discount rates. **CONCLUSIONS:** Differences in QALYs and costs between SGLT2is as add-ons to MET+SU were minor. On average, empagliflozin 10mg resulted to be the most cost-effective option for T2DM patients failing MET+SU when commonly accepted thresholds in the UK were considered, with an incremental cost per QALY of £17,445 compared to canagliflozin 100mg.

PDB111

ABSENTEEISM AND PRESENTEEISM IN A POPULATION OF PATIENTS WITH DIABETIC FOOT ULCERS IN POLAND

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OBJECTIVES: Diabetic Foot Syndrome (DFS) is a serious and common complication of diabetes, often leading to limb amputation and disability. Disability and productivity loss in patients with DFS can generate significant indirect costs and potentially significant economic consequences. The purpose of the study is to estimate productivity loss and indirect costs associated with foot ulceration in patients with DFS. **METHODS:** We conducted a prospective survey in a population of DFS patients with foot ulceration. Loss of productivity was measured with a modified WPAI questionnaire. Indirect costs of both absenteeism and presenteeism were estimated using the human capital approach on the basis of the measure of gross value added per employee. **RESULTS:** Nearly one third of respondents (32%) declared that foot ulceration was the direct reason why they abandoned their professional activity. 40% and 34% of respondents, respectively, were forced to limit or change their professional activity at some point in the past because of the foot ulceration. More than 40% of respondents who changed or limited their professional activity because of the foot ulceration experienced reduction in earnings by 22.9% on average. Mean absenteeism was estimated at 32.63% of the nominal working time, while presenteeism was estimated at 23.48% of real working time. Total annual indirect costs associated with productivity loss amounted to EUR 170.8 million, including EUR 117.3 million of the costs of sickness absence and EUR 53.5 million of the costs of presenteeism. **CONCLUSIONS:** Foot ulceration in patients with DFS is a common cause why patients are forced to give up or change their professional activity, which usually leads to a reduction in earnings. Indirect costs associated with foot ulceration in DFS impose a significant burden on the Polish economy. There is no rationale that would clearly link productivity loss associated with ulceration in DFS and the ulceration severity.

PDB112

EXAMINING THE ROLE OF INSULIN PEN DEVICES IN ACUTE CARE SETTINGS: A REVIEW AND ANALYSIS OF HEALTH RESOURCE UTILIZATION

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OBJECTIVES: Insulin administration in the acute care setting is an integral component of inpatient diabetes management. The current method of administration in acute care settings is by vial and syringe. The aim of this study was to evaluate the impact of insulin pen implementation in the acute care setting on patient and health care worker safety, and health resource utilization (HRU). **METHODS:** A review of published literature was conducted to identify how insulin pen devices in the acute care setting may impact inpatient diabetes management. Additionally, nurse researchers from the McGill University Health Centre conducted a pilot study in a 52-bed unit to quantify this impact in a local context. Together, the results of the literature search and the pilot served as the inputs to an economic model, developed in Excel v14. Costs for the volume of insulin dispensed, injection supplies, needlestick injury management, and nursing labour were assessed. **RESULTS:** Previous published studies have revealed that insulin pen devices have the potential to improve inpatient management through better glycemic control, increased adherence and improved self-management education. The combined results from the literature and pilot indicate that moving from vial and non-safety syringe to a passive safety pen in acute care results in total estimated annual cost savings of $43,339.66, and 191.42 hours of nursing time saved (site with 52 beds dedicated to patients with diabetes). Cost savings from the adoption of a passive safety insulin pen were predicted based on reductions in insulin volume and needlestick injuries. For an institution of similar size using safety syringes, the move to a